

Application No. 10/707,465  
Technology Center 1763  
Amendment dated September 27, 2006  
Reply to Office Action of April 18, 2006

### **REMARKS**

In the Office Action, the Examiner maintained the following prior art rejections:

Claims 1-10 and 14-20 were rejected as being unpatentable over Applicants' admitted prior art (APA) in view of U.S. Patent No. 6,475,289 to Schilbe et al. (Schilbe) or U.S. Patent No. 6,265,022 to Fernihough et al. (Fernihough);

Claims 11-13 were rejected as being unpatentable over the APA in view of Schilbe or Fernihough, and in further view of U.S. Patent No. 5,707,453 to Shurman et al. (Shurman);

Claims 1-11 and 13-20 were rejected as being unpatentable over the APA in view of U.S. Patent Application Publication No. 2005/0035086 to Chen et al. (Chen); and

Claim 12 was rejected as being unpatentable over the APA in view of Chen in further view of Shurman.

Applicants respectfully request reconsideration of these rejections in view of the attached Declaration under 37 CFR §1.132 and the following comments.

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In maintaining each of the above rejections, the Examiner provided the following explanation:

Applicant's arguments filed 3/16/06 have been fully considered but they are not persuasive. Applicant has argued,

"the oxides and dirt removed by Schilbe's process are not adhered to Schilbe's internal passage in the same manner as the aluminum-containing particles oxidized and sintered in situ during an aluminizing process"

"the sintered ceramic or metallic particles removed by Fernihough are not adhered to Fernihough's cooling hole 4 in the same manner as the aluminum-containing particles oxidized and sintered in situ during an aluminizing process",

"Chen at best removes the same type of debris removed by Schilbe, which are therefore not adhered in the same manner"

Applicant concludes that there is no reasonable expectation that the KOH will remove the oxides. However, applicant has provided only unsupported argument that the sintered oxides after formation are somehow different or are bonded in a different manner. One of ordinary skill in the art at the time of invention would have had a reasonable expectation of success since the prior art references teach contacting the sintered oxides of a turbine component with a caustic hydroxide solution such as KOH to effectively remove the oxides. (Emphasis added.)

In response to the underlined portion of the above, Applicants respectfully cannot find any basis for the Examiner's position that the prior art of record even mentions sintered oxides, much less teaches their removal with KOH. Sintering has a particular meaning in the powder metal sciences, for example,

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### SINTERING

The term sintering includes the union of finely divided material or powder by the action of heat with or without pressure. The heat must result from a positive application of heat at some point in the process. Heat resulting from the application of pressure alone is not considered to be a positive application of heat in these subclasses. Some, but not all, of the ingredients may melt. A chemical reaction such as reduction may occur during sintering.

Manual of Patent Classification, Classification Definitions, 419 - 3 (December 2000).

Applicants therefore respectfully ask that the Examiner identify the passages in the prior art references for his conclusion that "the prior art references teach contacting the sintered oxides of a turbine component with a caustic hydroxide solution such as KOH to effectively remove the oxides."

In response to the statement that "applicant has provided only unsupported argument that the sintered oxides after formation are somehow different or are bonded in a different manner," Applicants submit herewith a Declaration under 37 CFR §1.132, by which they explain differences between the sintered oxides removed by their process and the dirt deposits (Schilbe and Shurman), hot corrosion deposits (Chen), and ceramic plugs (Fernihough) removed by the prior art. Applicants believe that the chemical and physical differences described in their Declaration preclude one skilled in the art from

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having a reasonable expectation of success that adherent oxidized metallic particles formed *in situ* during an aluminiding process of the same surface to which the particles are concurrently sintered (the APA) could be removed with caustic hydroxide solutions previously used to remove dirt deposits, hot corrosion deposits, and ceramic plugs of the prior art. MPEP §§2142 and 2143.02. Instead,

The [references] disclose, at most, that one skilled in the art might find it obvious to try the claimed invention. But whether a particular combination might be "obvious to try" is not a legitimate test of patentability.

MPEP §2145X.B., citing *In re Fine*, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988), citing *In re Geiger*, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987).

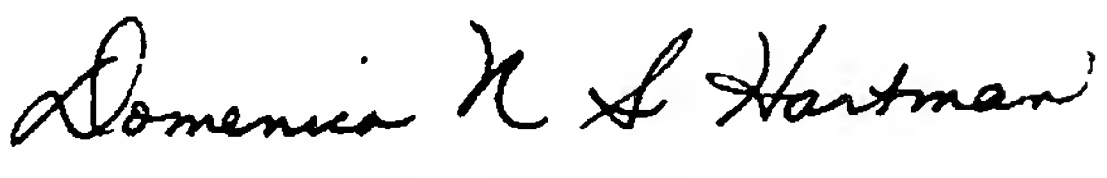
For all of the above reasons, Applicants respectfully request withdrawal of the rejections to the claims based on the APA combined with Schilbe, Fernihough, Chen, and Shurman.

In view of the above, Applicants believe that the claims define patentable novelty over all the references, alone or in combination, of record. It is therefore respectfully requested that their patent application be given favorable reconsideration.

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Should the Examiner have any questions with respect to any matter  
now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

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Attachments: Declaration under 37 CFR §1.132; Fee Transmittal form